

CLAIMS

We claim:

1. An apparatus for connecting electrical components comprising;
  - a) a plug means having a generally box-like configuration;
  - b) a plug terminal position assurance means having a generally box-like configuration, said plug terminal position assurance means being structured to fit at least partially within said plug means;
  - c) a cap means having a generally box-like configuration;
  - d) a cap terminal position assurance means having a generally box-like configuration, said cap terminal position assurance means being structured to fit at least partially within said cap means;
  - e) wherein, when the plug means is mated to the cap means, the plug means, the cap means, the plug terminal position assurance means and the cap terminal position assurance means interlock to form a box-in-box-in-box construction.
2. The apparatus of claim 1, wherein said cap terminal position assurance means comprises cutaways that mate with at least one corresponding key and at least one corresponding rail on said cap means.
3. The apparatus of claim 2, wherein said plug terminal position assurance means comprises cutaways which mate with said at least one corresponding key and at least one corresponding rail on cap means.
4. The apparatus of claim 3, wherein said plug means comprises cutaways which mate with said at least one corresponding key and said at least one corresponding rail on said cap means.
5. The apparatus of claim 1, wherein said plug terminal position assurance means comprises cutaways which mate with at least one corresponding key and

at least one corresponding rail on said cap means.

6. The apparatus of claim 1, wherein each of said plug means and cap means comprises at least one cavity adapted to receive and retain therein an electrical terminal.

7. The apparatus of claim 6, wherein each cavity comprises a deflectable locking finger and a rib which cooperate to retain the electrical terminal in the cavity.

8. The apparatus of claim 7, wherein the cap terminal position assurance means comprises a projection that contacts the deflectable finger to prevent said finger from deflecting.

9. The apparatus of claim 9, wherein the plug terminal position assurance means comprises a projection that contacts the deflectable finger to prevent said finger from deflecting.

10. The apparatus of claim 1, wherein said plug means further comprises a detent which cooperates with a slot on the plug terminal position assurance means to retain said plug terminal position assurance means in position.

11. The apparatus of claim 10 wherein said detent comprises a two stage detent.

12. The apparatus of claim 1, wherein said cap means further comprises a detent which cooperates with a slot on the cap terminal position assurance means to retain said cap terminal position assurance means in position.

13. The apparatus of claim 11 wherein said detent comprises a two stage detent.